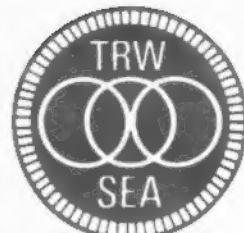




# CROSSTALK

News Bulletin of the **TRW** Amateur Radio Club



Volume 97 Number 10

October 1997

## Editor's Notes:



On August 22, 1997 TRW Space and Technology Group had successfully launched the SSTI/Lewis Spacecraft. Although there were a lot of effort by a lot of people, there were a few Club members that helped make this effort a reality. Unfortunately, after a few days on orbit, contact was lost with Ground Controllers. See article in this issue.



Launch Crew (l to r) Bob, KD6PKU; Duane (Editor), WA6EIK; (Vice President) Pat, KB6YPI;  
(not pictured: Barton, KD6YEC)

# TRWARC Monthly Calendar of Events

First Tuesday of each month	5:30 pm	<b>Executive Board Meeting</b> (All Club Members are invited)
Second Tuesday of each month	5:30 pm	<b>Club Meeting</b> Round Table Pizza, (Redondo Bch. & Hawthorne)
Second Tuesday of each month	12:00 noon	<b>Emergency Communications Team Meeting</b> R3 Emergency Operations Center
Last Saturday of each month	7:00 am	<b>TRW/ARC Swap Meet</b> Marine and Aviation (Northeast Corner)
After the Swapmeet	12:00 noon	<b>T-Hunt</b> Swap Meet Parking Lot - 144.72 MHz

## Reoccurring Events:

Every Monday Night (Except the 1st & Holidays)	7:30 pm	<b>Disaster Communication Systems (DCS) Net</b> DCS Members: Check in on 2 Meter Repeater
Every Wednesday	12:00 noon	<b>ECT Net on 2 meter Repeater</b>
Every Thursday Night	6:30 pm	<b>TRW Amateur Radio Club Net</b> The Bob and ? Show - Check In on 2 Meter Repeater
Every Friday Morning	7:30 am	<b>TRW Amateur Radio Club Breakfast</b> Building S Cafeteria - Everyone is invited Talk-in on 2 Meters

## Other Events

**Computer Fair** (previously The Computer Marketplace Computer Shows) **Hours: 10:00 to 17:00**

**POMONA** \$8 admission

Live Broadcasts: KFI-Jeff Levy "On Computers", KZLA, Y-107FM

October 4 & 5 (Sat. & Sun.)

November 1 & 2 (Sat. & Sun.)

Fairplex Exposition Complex Exit Highway 10 at Fairplex Drive.

Go north to McKinley Avenue, turn right. Turn left on White Avenue to Gate 14.

**RESEDA** \$3 admission

October 25 & 26 (Sat. & Sun.)

Sherman Square Entertainment Center From the 101 Freeway take the Reseda offramp,

go north to Sherman Way and turn right. Go one block to Canby Street. 18430 Sherman Way.

**BUENA PARK** \$5 admission

November 30 (Sun.)

Sequoia Conference Center Take the Beach Blvd. exit off the 91 Freeway.

Go one block north to 7530 Orangethorpe.

All Shows Open to the Public 10:00 a.m. to 5:00 p.m.

Call for more information (408) 778-5200 or 800-800-5600 Fax# (408) 779-1374

## Other Ham Swap meets:

**Inland Empire ARC** - 2nd Sat. ea. mo. @ A.B. Miller High School, Walnut & Olenander in Fontana - Talk-in 145.480 (-600 pl=77.0hz)

**CMRA** - 3rd Sat. ea. mo. @ DeVry Institute, 901 Corporate Center Dr. **Pomona** - Talk-in 146.175 (+600)

**El Cajon ARC** - 1st Sat. ea. mo. @ Santee Drive-in Theater, Woodside Ave. @ Hwy 67 in Santee

publish them.... ed

## **CLASSIFIEDS**

Going out of the radio building business: antennas, all kinds of radio parts and hardware, meters, boxes, wires, switches, etc. If interested, contact me @ x43104, Paul, N6DMV. Also looking for a Radio Shack PRO-25 scanner manual to copy. 73.

### **FOR SALE or trade for functional 28.8 kbaud or better internal modem with driver software (new or used)**

Promise EIDE 2300 Plus enhanced IDE controller for VESA Local Bus. Will handle 2 FDDs up to 2.88MB each as well as 2 EIDE devices and 2 std IDE devices or, - 2 EIDE HDDs and single IDE CD ROM. Will support HDs of up to 8.4GB each, (on-board bios). Also has 2 high speed serial ports (UART 16550) and an enhanced parallel port (EPP/ECP). Supports DOS 6.2x, Windows 3.1x, Windows for Workgroups 3.11, Windows NT, OS/2, 2.0, 2.1, Netware 3.1x, 4.01, SCO UNIX 3.2.4, and UNIX SVR4.02. 32 bit I/O support. All manuals, cables, and software included. New. Never used.

\$50.00 firm (but I would rather do the trade thing).

**John / KE6OJM R9-2838 X35903**

**(310) 813-5903 for those folks outside TRW.**

## **GET WELL WISHES**

Get well wishes goes out to Wayne Hogancamp, he recently had brain surgery and is recuperating, he is a regular at the Friday morning breakfasts, and hopes to return very soon.....  
(Sent in by Dave Nelson)



**A reminder that the 1997 TRW ARC Annual Awards Banquet is coming up next month!**

**Send in your reservation form ASAP, this one like previous ones are always a sell out!! For those of you who haven't attended a TRW ARC Banquet, there is always an interesting Guest Speaker, Plenty of Prizes, Good Food, and of course, a chance to get together with fellow club members and socialize, or in ham jargon, "ragchew". So mark your calendars for November 22<sup>nd</sup> and be there!!!!!! See the cool flyer in this issue!**

From "THE ASSOCIATED PRESS"  
September 19, 1997

## NASA SATELLITE HEADED BACK TO EARTH

By John Antczak, Associated Press Writer

LOS ANGELES (AP) -- A NASA satellite that fell silent shortly after launch in August is expected to re-enter Earth's atmosphere this month and burn up.

Engineers have been unable to revive the multimillion-dollar Lewis satellite and now predict it will fall between Sept. 23-30, most likely on Sept. 27, the National Aeronautics and Space Administration said Friday.

Exactly where and when the fiery plunge will occur can't be predicted. Its 90-minute, polar sun-synchronous orbit puts it over every part of Earth at some time.

No pieces of the 890-pound satellite are expected to reach Earth's surface, said Samuel Venneri, chief technologist at NASA headquarters in Washington.

"The probability that any part of it will survive is very low, and it presents no significant threat to people on the ground," Venneri said.

The satellite was designed to last five years in orbit.

Atmospheric drag is increasing and a last-minute save would require contact by early next week. But Lewis has been silent for weeks.

Built by **TRW Space & Electronics Group** and named after 19th century American explorer Meriwether Lewis, the satellite was equipped with advanced technology for Earth observation.

It was intended to push the state of the art in remote-sensing for science and commercial uses such as monitoring pollution, analyzing endangered species habitats, estimating forest and agricultural productivity, mapping soil resources, and assessing energy pipeline environmental impacts.

NASA budgeted \$64.8 million for the mission, including the launch vehicle and one year of orbital operations. NASA also spent an additional \$6.2 million for storage and maintenance during a one-year delay in launching.

A companion technology demonstration satellite, named after Lewis' partner William Clark, has experienced developmental difficulties and is not scheduled for launch until 1998.

Lewis was boosted into a 186-mile-high polar orbit by a Lockheed Martin LMLV-1 rocket launched from California's Vandenberg Air Force Base on Aug. 22.

All appeared normal until early on Aug. 26 when controllers in Chantilly, Va., received data showing it was spinning at two revolutions per minute. By then a catastrophic chain of events had begun, dooming Lewis.

The spin prevented enough of the sun's energy from reaching the solar arrays and lack of full power generation discharged the satellite's batteries below operational levels.

Although it wasn't known if Lewis could receive commands, controllers ordered it to turn off all unnecessary power while engineers tried to figure out what was wrong and restore communications and control.

Meanwhile, the satellite faced two threats: the effects of cold temperatures on sensitive electronic parts and the gradual descent back toward Earth's atmosphere.

If the mission had gone as planned, the satellite would have been boosted out of its initial low "parking orbit" into a 320-mile-high orbit.

NASA officials theorize that slightly excessive firing by a thruster on one side of the satellite caused the spin.

NASA spokesman Doug Isbell said Friday that Venneri does not see Lewis' problem as a failure of NASA's "faster, better, cheaper" mandate.

"He doesn't see it that way, just a failure of this attitude control system," Isbell said.

## **FCC ISSUES GATE 3 CALL SIGNS!** Reprinted from the ARRL LetterVolume 16, Number 37

Get ready to remember another batch of new call signs. Six weeks to the day after the opening of Gate 3, the FCC began processing vanity call sign applications. FCC personnel in Gettysburg, Pennsylvania, had spent much of the intervening time clearing out a backlog of vanity applications filed prior to the Gate 3 opening and matching up payments with electronic applications. On Wednesday, September 17, the FCC issued some 500 to 600 vanity call signs to those who had filed applications on August 6, the opening day.

Applicants can check for new call signs at <http://www.arrl.org/fcc/fccld.html> or by using one of the other popular call sign databases.

Judging from the call signs turning up on the FCC database, some Advanced class hams took advantage of Gate 3 to obtain Group C call signs where the suffix comprised either a first name (we spotted a Joe, a Don, a Ken, a Bob and a Gay, for example) or a set of initials. Perhaps apropos of his QTH, Gene Uliasz of Gun Barrel City, Texas, used Gate 3 to turn KC4WA into K5TNT. Formerly KF6CG, Georgia A. Lawrence of Manhattan Beach, California, obtained K6GAL. Other applicants obtained new Group B call signs, sometimes trading one 2x2 in for another. For example, Karl Mortensen of Wakefield, Rhode Island, swapped KE1FK for KA1RL. Still others went for the snappy suffix. Charles Pharis of Kagel Cyn, California, turned in KK6NE for KA6USA. Michael Amaral of Walpole, Massachusetts, gave up W1IDP to obtain WA1AW. Along the same lines, Michael Esposito of Germantown, Tennessee, swapped WA2VXV for WA2AW. Yvonne Lane of Kingwood, Texas, gave up KF5MY for W5XYL.

A few, like West Gulf Director Jim Haynie, just shortened the prefix. Haynie went from WB5JBP to W5JBP. Others went for one appropriate for their QTH. Teriann Miner of Palmer, Alaska, turned in her lower-48 call sign, KG0OY, for KL7AT.

The Iowa DX and Contest Club got WI0WA.

In all, it appears that the FCC received more than 1000 vanity call sign applications on August 6. Because earlier gates remain open, it's impossible to get an accurate count of applications filed solely under Gate 3, however. The FCC still has not indicated when it plans to open Gate 4, which will make the vanity call sign program available to General, Tech Plus, Technician and Novice licensees.

## **Mir CREW FIXES COMPUTER—AGAIN** Reprinted from the ARRL LetterVolume 16, Number 37

The Mir computer crashed again earlier this week, but the crew cobbled together enough spare parts to put it back into service within a day. Sunday's computer failure was the fourth in three months. The computer went down only last week, sending the Russian space station spinning in orbit.

The malfunction was the latest in a series since Mir was damaged in a collision June 25 with an unmanned Progress supply rocket. It forced the crew to turn off lights in most of the Mir's modules. The crew had to fire thrusters to re-aim the spacecraft in the right direction to get sunlight on its solar panels.

A replacement computer and system parts reportedly are aboard Mir, and a completely new computer is to be sent up on a Progress supply rocket next month. The Russians have asked NASA to ferry another new computer to Mir aboard the shuttle later this month as well.

To top the computer failure, the three-man Mir crew, including US astronaut Mike Foale, KB5UAC, took refuge late Monday in the Soyuz transporter as a US military satellite passed by too close for comfort. Reports on just how close the satellite was vary from 470 yards to three-fourths of a mile, depending on the source.

The problems followed in the wake of a damning report from NASA Inspector General Roberta Gross that outlined a host of unsafe conditions and situations that US astronauts have faced aboard Mir. Those concerns were aired during a House Science Committee hearing on Mir safety issues this week. NASA has maintained, however, that Mir remains safe and still plans to post astronaut David Wolf, KC5VPF, to Mir later this month for a four-month stay.

Meanwhile, the new, experimental 70-cm ham radio frequency for Mir, 437.650 MHz, is said to be working well. MIREX will continue the frequency swap test until September 28, then return to 2 meters. BJ Arts, WT0N, reports having an enjoyable chat with Foale on September 8. Foale told Arts that when he gets back to Earth, he wants to take a vacation "somewhere warm."

Foale said he enjoys seeing the .jpg photo files some hams have posted but suggested keeping the size of any .jpg files to 10 kB or less.

Foale returns to Earth next week aboard the space shuttle Atlantis.